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Application No.: 10/608,187
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IN THE CLAIMS:

Please amend claims 1 and 9 as follows. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): An electric field alignment method of a ferroelectric liquid crystal display device, comprising:

connecting a plurality of thin film transistors arranged along a first direction to a plurality of data lines in an offset configuration between adjacent data lines;

supplying a turn-ON voltage at a level greater than a threshold voltage of the thin film transistors during an electric field alignment of ferroelectric liquid crystal material of the ferroelectric liquid crystal display device at least more than two successive times to a plurality of gate lines arranged along a second direction; and

supplying voltages of opposite polarity to the adjacent data lines during the electric field alignment while maintaining a voltage of a ferroelectric liquid crystal cell of the ferroelectric liquid crystal display device during the electric field alignment,

wherein an electric field is applied to the ferroelectric liquid cell by using a leakage current of the thin film transistors so as to improve response characteristics of the ferroelectric liquid crystal device.

Claim 2 (Original): The electric field alignment method according to claim 1, wherein the ferroelectric liquid crystal cell operates in a Half V-Switching Mode.

Claim 3 (Original): The electric field alignment method according to claim 1, wherein supplying the turn-ON voltage to the gate lines is performed at least between ten to four-hundred times to the gate lines.

Claim 4 (Withdrawn): An electric field alignment method of a ferroelectric liquid crystal display device, comprising:

connecting a plurality of thin film transistors arranged along a first direction to a plurality of data lines arranging in an offset configuration between adjacent data lines;

supplying a voltage below a threshold voltage of the thin film transistors to a plurality of gate lines during an electric field alignment of ferroelectric liquid crystal material of the ferroelectric liquid crystal display device; and

supplying voltages of opposite polarity to adjacent data lines during the electric field alignment while maintaining a voltage of a ferroelectric liquid crystal cell of the ferroelectric liquid crystal display device during the electric field alignment.

Claim 5 (Withdrawn): The electric field alignment method according to claim 4, wherein the ferroelectric liquid crystal cell operates in a Half V-Switching Mode.

Claim 6 (Previously Presented): The electric field alignment method according to claim 1, wherein supplying the voltage below the threshold voltage of the thin film transistors to the gate lines includes supplying a voltage between 0~1V to the gate lines during the electric field alignment.

Claim 7 (Withdrawn). An electric field alignment method of a ferroelectric liquid crystal display device, comprising:

connecting a plurality of thin film transistors arranged along a first direction to a plurality of data lines in an offset configuration between adjacent data lines;

maintaining a plurality of gate lines in an electrically floating state during an electric field alignment of a ferroelectric liquid crystal material of the ferroelectric liquid crystal display device; and

supplying voltages of opposite polarity to the adjacent data lines during the electric field alignment while maintaining a voltage of a ferroelectric liquid crystal cell of the ferroelectric liquid crystal display device during the electric field alignment.

Claim 8 (Withdrawn): The electric field alignment method according to claim 7, wherein the ferroelectric liquid crystal cell operates in a Half V-Switching Mode.

Claim 9 (Currently Amended): A ferroelectric liquid crystal display device, comprising:

 a liquid crystal panel having a plurality of data and gate lines and a plurality of thin film transistors arranged along a first direction in an offset configuration between adjacent data lines;

 a gate driving circuit for supplying a turn-ON voltage at least more than two successive times to the plurality of gate lines, the turn-ON voltage set at a level above a threshold voltage of the thin film transistors during an electric field alignment of ferroelectric liquid crystal material; and

 a data driving circuit for controlling opposite polarity voltages supplied to the adjacent data lines during the electric field alignment while maintaining a voltage supplied to ferroelectric liquid crystal cells during the electric field alignment,

wherein an electric field is applied to the ferroelectric liquid cell by using a leakage current of the thin film transistors so as to improve response characteristics of the ferroelectric liquid crystal device.

Claim 10 (Original): The ferroelectric liquid crystal display device according to claim 9, wherein the ferroelectric liquid crystal cell operates in a Half V-Switching Mode.

Claim 11 (Original): The ferroelectric liquid crystal display device according to claim 9, wherein the gate driving circuit supplies the turn-ON voltage between ten and four-hundred times to the plurality of gate lines.

Claim 12 (Original): The ferroelectric liquid crystal display device according to claim 9, wherein the data driving circuit supplies video data having different polarities to the adjacent data lines during driving of the display device.

Claim 13 (Withdrawn): A ferroelectric liquid crystal display device, comprising:

- a liquid crystal panel having a plurality of data and gate lines and a plurality of thin film transistors arranged along a first direction in an offset configuration between adjacent data lines;
- a gate driving circuit for supplying a voltage below a threshold voltage of the thin film transistors to the gate lines during an electric field alignment of ferroelectric liquid crystal material of the display device; and
- a data driving circuit for controlling opposite polarity voltages supplied to the adjacent data lines during the electric field alignment while maintaining a voltage supplied to a ferroelectric liquid crystal cell during the electric field alignment.

Claim 14 (Withdrawn): A ferroelectric liquid crystal display device, comprising:

- a liquid crystal panel having a plurality of data and gate lines and a plurality of thin film transistors arranged along a first direction in an offset configuration between adjacent data lines; and
- a data driving circuit for controlling opposite polarity voltages supplied to the adjacent data lines during an electric field alignment while maintaining a voltage supplied to a ferroelectric liquid crystal cell during the electric field alignment,

wherein the gate lines remain electrically floating during the electric field alignment.